REMARKS

In this amendment, claim 2 has been canceled; and its recitations have been incorporated into claim 1. Claim 3 has thus been canceled as being identical with and duplicative of claim 8.

Claim 18 has been amended by replacing the recitation of software with a means plus function recitation. This should remove the basis for its rejection under 35 USC 101 in the Office Action.

Claims 1 – 8 and 11 – 19 stand rejected under 35 USC 102(b) as being anticipated US 5,777,877 to Beppu et al. Applicants request reconsideration of this rejection, especially in view of their amendments.

Applicants' invention is an apparatus and method that helps manage changes in a large and complex collection of items represented in records of a database, wherein the records contain information relating individual items to other items in the collection which may potentially be affected by a change in other records. It is particularly useful in a manufacturing plant having a large number of products comprising a much larger number of parts, material specifications, plant areas affected, etc. The invention is an answer to the question, "If item X is to be changed, which other items in the collection will actually be affected by this change and which will not. It does this, upon an identification of part X, by searching for all records in the database related to part X as potentially being affected, assigning them to one of three groups – (1) affected, (2) not affected or (3) further analysis required – and presenting them in corresponding user-updateable lists on a computer-user interface. Using these lists, an operator can determine, for of the items identified in the group (3) – further analysis required – list, whether it will or will not be affected and update the lists accordingly until all items are in either the affected list or the unaffected list. The advantage of the apparatus and method over the prior art, whether this prior art is a manual search or the limited system of Beppu, is that the search is complete, fast and well organized and there is feedback providing confirmation

of what items have been considered and classified. The confidence in the results is just as important, if not more so, than the speed of the results.

It should be noted that the initial classification by the apparatus and method into the affected or the not affected list may be accomplished by machine applied, predetermined rules, as in the prior art; but any related items not so classified are automatically placed in the further analysis required list for classification by the operator. It also should be noted that the updateability of the lists allows the operator to perform this classification to change the display and thus gain immediate confirmation of the action. It should finally be noted that, when the further analysis required list becomes empty, positive notification is thus provided that all related items found so far have been accounted for and known to be either affected or not affected.

Beppu, on the other hand, discloses a much more limited system. This system provides a computer controlled BOM modifier for a production part BOM on the basis of a modified design BOM. This system has some overlap with that of the applicants, but does not disclose all of the latter. For example, Figure 6, which displays the modified production BOM, displays lists (icons) of items on the screen identified as affected or not affected; but none are disclosed as needing further analysis. For example, the plain boxes (51, 52) indicate not affected and both the boxes with double lines and the boxes with diagonal cross-hatching indicate affected. In addition, although Examiner states that these lists are updateable, no confirming passage of this alleged fact is provided; and applicants can find none.

Examiner states that the need further analysis list is shown in Figure 13, which Examiner characterizes as "the UI element used to further classify objects." This is a mis-characterization. Figure 13 shows an entry screen for providing information about the engineering change (EC) itself, such as the reason for the change (EC factor), application condition, status, etc. This is the "further analysis" of the EC screen; and it has nothing at all to do with

classifying an item as being affected or not be affected by the change (which is what applicants' "further analysis" means).

Thus, applicants do not find in Beppu an updateable affected list or an updateable not affected list; and they most particularly do not find an analysis required list of any kind. Thus, the reference is missing an element of applicants' independent claims 1 (as amended), 11 and 17 – and thus of all applicants' claims. In particular, if Examiner still maintains that Beppu discloses, in a single display on a computer-user interface in response to an input of an identified item, a single display of three separate, updateable lists as recited by applicants (affected items, not affected items and items requiring separate analysis as to whether change is needed or not, whereby the user may quickly and easily identify items requiring further analysis as to whether or not they require change, applicants request that the Examiner specifically identify, in detail, the lists and the language in Beppu that clearly characterizes the lists as such.

In a further refinement of the method and apparatus of the invention, the computer interface and display additionally allows the operator to select any one of the items found on any of the three lists for a further search and display of items indicated as "related" (potentially affected thereby" in a fourth list, with a visual indication of which of the three lists – affected, not affected or further analysis required – the item is in. This adds an additional tool providing a broader view that is particularly useful in conjunction with the three separate lists. Referring to applicants' Figure 2, the three separate lists – affected items 204, not affected items (208) and analysis required (206) appear on the right half of the screen and the input field 200 and "related items" (items potentially affected) list appear in the left half of the screen, with the indicators ("Y" for affected, "N" for not affected and "?" for needs further analysis) showing for all items listed. This embodiment of the invention is even faster and easier to use than the basic invention without the related items list, as the operator moves back and forth between the broader view list on the left and the specialized lists

on the right. This embodiment of the invention is recited in claims 7, 13 and 19. Examiner correctly points out that Figure 6 of Beppu shows an indication of a "need for recomposition" by the fill and border combinations, but this does not anticipate the relevant recitations of these claims, for the following reasons:
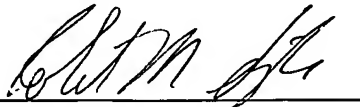
(1) No such indication is given in Figure 6 for items on a further analysis required list (as required by applicants' claims 7, 13 and 19, since Beppu discloses no such list; and

(2) Even if such indication were shown in Beppu, applicants' claims 7, 13 and 19 are directed to the use of BOTH the three specialized lists (affected, not affected and further analysis required) and the related items list with visual indicators in the same user interface, as described above. Beppu does not show use of all four lists, much less all in the same display. Thus, claims 7, 11 and 19 are not anticipated by Beppu, even beyond their dependency on claims 1, 11 and 17, respectively.

Applicants thus request withdrawal of all prior art rejections of all presented claims and allowance of these claims.

Please charge any deficiencies and credit any overpayment to Deposit Account No. 50-0831.

Respectfully submitted,

Robert M. Sigler
Attorney - Reg. No. 26,505
(248) 813-1245